Appl. No. : 10/090,406
Filed : March 4, 2002

REMARKS

With this amendment, Claims 1-20, 22-32 are pending in the present application. Claims 1 and 2 have been amended. Claim 21 has been canceled. Claims 25-32 have been added. In view of the foregoing amendments and the following remarks, Applicant respectfully requests reconsideration and allowance of this application.

Priority

The Examiner acknowledged Applicant's claim for foreign priority based on applications filed in Australia, but noted that Applicant has not filed certified copies of the Australian applications as required by 35 U.S.C. §119(b). Applicant would like to thank the Examiner for the reminder and assure the Examiner that certified copies of the Australian applications will be filed with the U.S. Patent Office prior to the grant of the patent.

Double Patenting

The Examiner made a provisional rejection of Claims 1-3, 12-16 and 20-24 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4, 6, 8, 9-18, 21, 23-31 of Applicant's copending U.S. Patent Application No. 10/090,375. To overcome the provisional double patenting rejection, Applicant is submitting herewith a terminal disclaimer in compliance with 37 C.F.R. §1.321(c). Accordingly, Applicant respectfully requests the Examiner to withdraw this provisional rejection.

Claim Rejections-35 U.S.C. §112

The Examiner rejected Claims 2 and 13 under 35 U.S.C. §112, second paragraph, as being indefinite. With respect to Claim 2, the Examiner asserts that since the "desired properties" are not specifically claimed, it is unclear as to what "functional additives" may be added to provide the "desired properties". Applicant has amended Claim 2 to point out that the functional additives are added to provide one or more physical and/or chemical properties to the functional layer.

Applicant further submits that a person skilled in the art would readily understand that the scope of Claim 2 encompasses various functional additives that can be added to the functional layer to achieve a particular physical and/or chemical property. The exact nature of each additive and desired property is not essential to understanding the scope of this claim. While some examples of the desirable properties are disclosed in the specification (see, *e.g.*, Page 4,

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Paragraph 22 of the specification), it would be readily apparent to one skilled in the art that the scope of Claim 2 is not limited to specific properties, but rather encompasses the general concept of adding additives to the functional layer to further modify one or more properties of the layer so that the layer can be tailored for specific applications.

With respect to Claim 13, the Examiner indicates that the limitation "wherein the dewatering agent is provided in sufficient quantity to maintain porosity in the functional layer(s) and the substrate during dewatering" is indefinite because the functional layer is not specified in the claim and it is therefore unclear how much dewatering agent is necessary to maintain the porosity. Applicant respectfully disagrees with the Examiner's assessment and submits that it would be well within the ambit of a person skilled in the art to experiment and arrive at a suitable quantity of dewatering agent to maintain the porosity for a particular functional layer. Such experiments can be easily conducted and do not place undue burden on the skilled person. Accordingly, Applicant submits that Claims 2 and 13 meet the requirements of 35 U.S.C. § 112 and respectfully requests the Examiner to withdraw this rejection.

Claim Rejections-35 U.S.C. §102

The Examiner rejected Claims 1, 2, 4-8, 12-20 and 24 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,818,595 to Ellis. After reviewing the Ellis reference, Applicant notes that Ellis is not directed toward a building composite material that uses *fly ash* as a dewatering agent in its functional layer as disclosed in one embodiment of Applicant's invention. Instead, Ellis is directed toward a wood substrate having a fire-barrier coating. Nowhere in Ellis does it teach or suggest improving the dewatering capability of the slurry coating, let alone using fly ash as a dewatering agent in the coating. Since the cited reference does not disclose each and every element of independent Claim 1 as amended, Applicant respectfully requests that the rejection of the claims over this reference be withdrawn.

Claim Rejections-35 U.S.C. §103

The Examiner rejected Claim 3 under 35 U.S.C. §103(a) as being unpatentable over Ellis in view of U.S. Patent No. 5,236,773 to Sorathia et al. After reviewing the references, Applicant notes that both Ellis and Sorathia are directed toward forming fire resistant coatings on a substrate. Neither reference addresses improving the dewatering capability of the slurry nor the use of fly ash as an additive. As such, there could have been no teaching or suggestion in these

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references, individually or in combination, of a substrate having a functional layer that utilizes fly ash as a dewatering agent. Therefore, Applicant respectfully submits that Claim 3 is patentable over Ellis in view of Sorathia.

The Examiner also rejected Claims 21 and 23 under 35 U.S.C. §103(a) as being unpatentable over Ellis in view of U.S. Patent No. 4,981,740 to Larsen. While Larsen discloses the use of fly ash in a cement mixture, the application of the cement mixture is quite different from that disclosed in certain embodiments of Applicant's invention. In Larsen, fly ash is used as a filler in a sulfur cement mixture for casting concrete pipes. The pipe casting process typically does not require the slurry to dewater quickly and uniformly so as to form a level cement layer on a substrate as required in cement coating processes. As such, there could have been no teaching or suggestion of using fly ash as a dewatering agent in Larsen when slurry dewatering capability through the substrate is generally not a concern in cement casting processes.

Moreover, there would have been no motivation to substitute fly ash as taught by Larsen for the filler disclosed in the coating composition in Ellis to improve dewatering of the slurry. The products and processes disclosed by Larsen and Ellis are so unrelated that there would have been no motivation for a person skilled in the art to combine the teachings of the references. Larsen appears to be solely concerned with forming acid-resistant concrete pipes while Ellis is related to applying fire-resistant coatings on wood. Moreover, neither reference addresses dewatering of slurry. Accordingly, Applicant submits that the claims are patentable over Ellis in view of Larsen and respectfully requests that this rejection be withdrawn.

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CONCLUSION

In view of the foregoing, Applicant respectfully submits that all pending claims of the present application are in condition for allowance, and such action is earnestly solicited. Should there be any impediment to the prompt allowance of this application that could be resolved through a telephone conference, the Examiner is respectfully requested to call the undersigned at the number shown below. Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: 3/6/2003

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